



SMART GROWTH AND REGIONAL COLLABORATION

Town of Arlington Residential Parking Analysis March 2016

Prepared for:
Town of Arlington Department of Planning & Community Development

Prepared by:
Metropolitan Area Planning Council

Executive Summary

Urban trends have indicated that rates of vehicle ownership and demand for residential parking have decreased over time. In order to understand how these trends may be impacting parking utilization in Arlington, The Metropolitan Area Planning Council (MAPC) conducted a residential parking analysis of nine multi-family residential properties in Arlington to support the Town's efforts to revise their parking requirements. Based on findings from surveys of property managers and owners and overnight parking counts, MAPC recommends instituting parking maximums of one space per unit in some of the most dense, walkable, and transit-accessible districts along the Massachusetts Avenue corridor. By reducing parking requirements, the Town can prevent the overconstruction of parking and allow for those resources to be put toward other amenities that benefit the public good.

Introduction

The purpose of this analysis is to assess residential parking usage at multi-family residential developments in an effort to better understand potential discrepancies between parking requirements and parking utilization. This data can be used to adjust parking requirements in the Zoning Bylaw to more accurately reflect actual parking utilization rates within particular zoning districts.

The data presented in this analysis is indicative of larger trends regarding vehicle ownership and transit usage. Nationwide, particularly in urban centers, there is a shift toward decreased reliance on single-occupant vehicles as a primary mode of travel as public transit, bicycling, walking, carsharing, and carpooling become more attractive options. From 2001-2009, Americans ages 16 to 34 decreased their vehicles miles traveled by 23%, while miles traveled on public transit by this population increased 40%.¹

In residential developments that include parking as a part of rental or purchase cost, the cost of constructing and maintaining parking spaces is passed along to the homeowner or tenant. Residents who do not need parking effectively subsidize the cost of an amenity that they do not utilize. This “bundling” of parking costs with rental or purchase cost puts a significant strain on low-income residents who typically spend a larger proportion of their earnings on housing and transportation than those in higher income brackets.

As stated in the Town of Arlington’s most recently adopted Master Plan, reduced parking requirements is recommended to address the high cost of housing:

Housing and Residential Development Recommendation 4:

“Modify parking requirements to encourage multi-family housing and mixed use development in commercial areas. The cost of parking is often the greatest hindrance to the economic feasibility of dense, urban developments. Minimum parking requirements should be removed for new mixed-use developments on Massachusetts Avenue and Broadway. These locations are well-served by public transit, and are close enough to commercial amenities and civic services so that the need for car use will be reduced.”²

Overly burdensome parking requirements also negatively impact developers. Setting aside the cost of land acquisition, paving and striping, and engineering work required for proper drainage, the construction costs alone can serve as a substantial barrier to development. Parking structure construction costs in the Boston area are above the national average, with the average parking structure costing approximately \$75 per square foot per space, or \$22,500 per space, to construct.^{3,4} Construction costs are lower for

¹ Todd Litman, “The Future Isn’t What It Used To Be: Changing Trends And Their Implications For Transport Planning,” *Victoria Transport Policy Institute* (August 2015): 14, <http://www.vtpi.org/future.pdf>.

² “Arlington Master Plan: Your Town, Your Future,” *RKG Associates* (January 2015): 63, <http://www.arlingtonma.gov/home/showdocument?id=22935>.

³ “USA Report: Quarterly Construction Report, Fourth Quarter 2015,” *Rider Levett Bucknall* (2015): 4, <http://rlb.com/wp-content/uploads/2016/01/rlb-usa-report-fourth-quarter-2015.pdf>.

⁴ Assumes that parking spaces and associated aisle space are approximately 300 square feet.

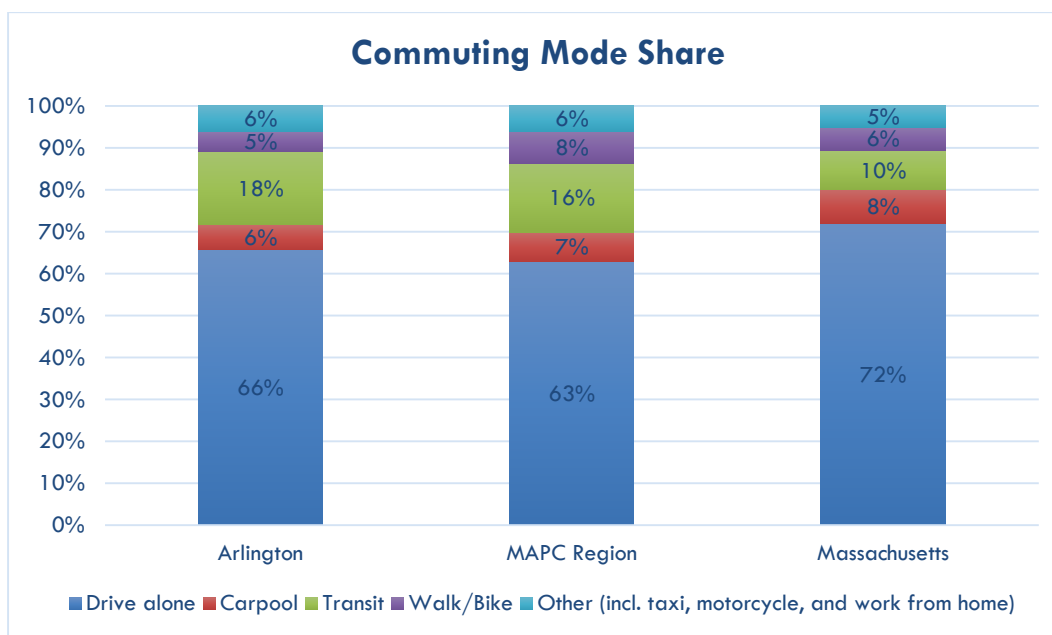
surface lot parking; generally, surface parking lots comprise about 10% of total development costs, and on average cost about \$10,000 per space to construct.⁵

Demographic changes and the high cost of constructing and maintaining overbuilt parking demonstrate the importance of establishing context-specific, “right-sized” parking standards. Reducing parking requirements can spur cost savings, encourage future development, and support housing affordability. Additionally, resources that were once allocated to parking can be used for other purposes that may more directly benefit the public good, such as the construction of affordable housing and open space development.

Arlington Demographics

Using data from the 2010-2014 American Community Survey, MAPC explored how Arlington’s commuting patterns and vehicle ownership rates may impact the need for parking at multi-family residential developments. Figure 1 below depicts commuting mode share in Arlington in comparison to the MAPC region and the state as a whole. Nearly one in three Arlington residents commute by a means other than driving alone. Based on national trends, the number of residents taking more sustainable modes of travel to work is expected to increase over time.

Figure 1. Comparison of Commuting Mode Share

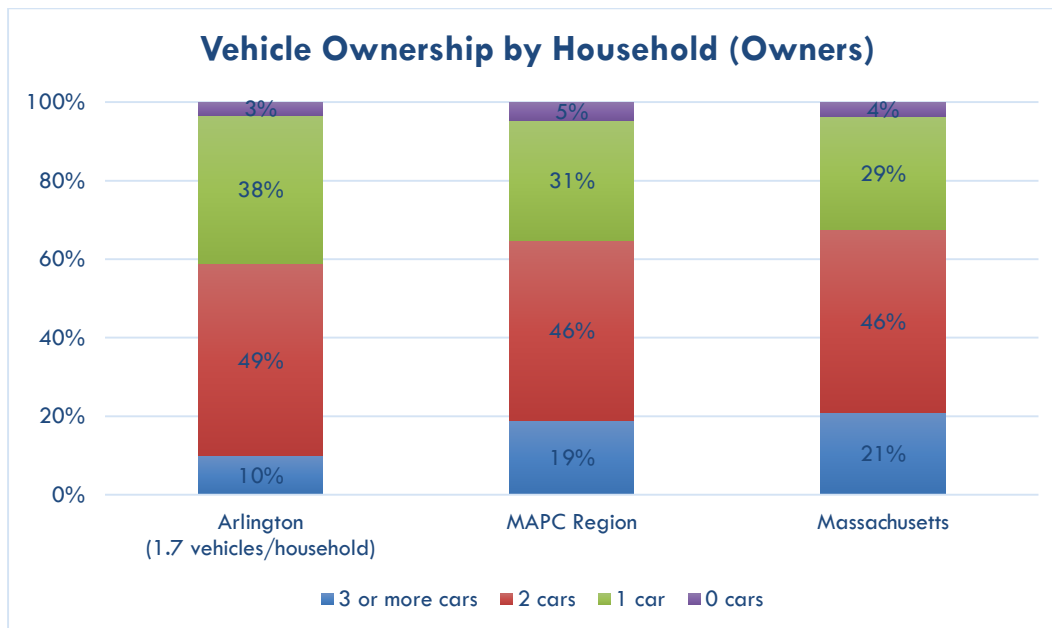
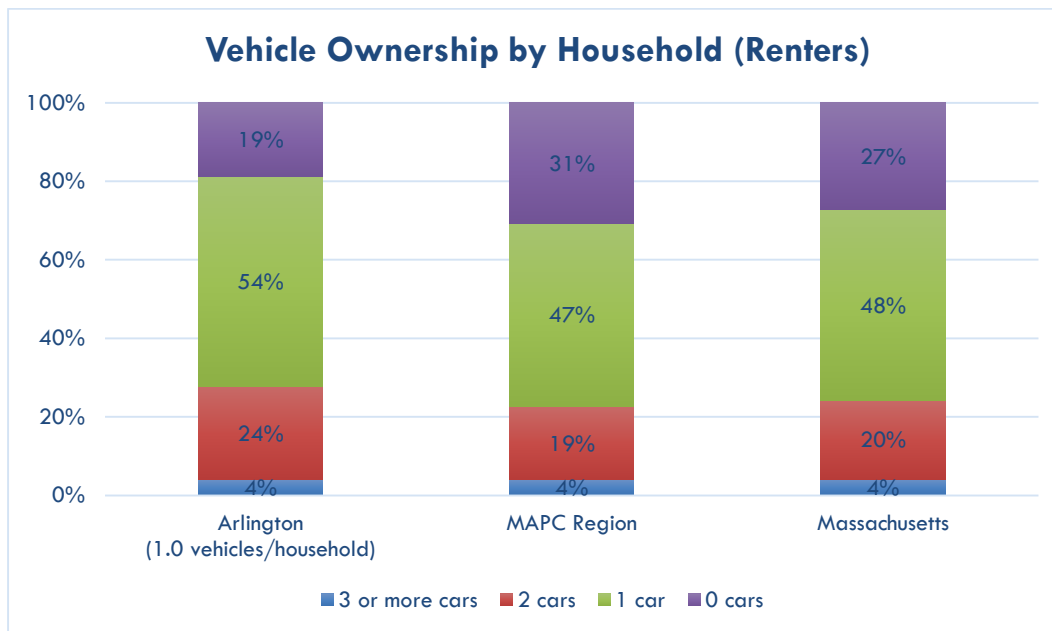


In addition to the commuting data, MAPC also evaluated rates of vehicle ownership at rental and ownership households. MAPC found that ownership households owned 1.7 vehicles per household on average, while rental households averaged a bit lower at 1.1 vehicles per household. Lower rates of

⁵ “Transportation Cost and Benefit Analysis II – Parking Cost,” Victoria Transport Policy Institute (December 10, 2015): 17, <http://www.vtpi.org/tca/tca0504.pdf>.

vehicle ownership among rental household in comparison to ownership households is a common trend within both the MAPC region and the state.

Figure 2. Vehicle Ownership by Household



This data is intended to provide context for the commuting patterns and vehicle ownership rates for the town as a whole. However, the purpose of this study is to focus on residential parking utilization at multi-family developments, which tend to be constructed within dense, walkable, and transit-rich districts. For this reason, the study area primarily encompasses the densely developed areas surrounding the Massachusetts Avenue corridor. Based on the results of this study, which are detailed below, rates of vehicle ownership for the entire town are not necessarily reflective of vehicle ownership rates at households within the study area. Therefore, there is a need to create distinct parking requirements that are better suited for multi-family properties in densely developed, transit-accessible areas. By modifying uniform parking requirements in favor of regulations that are more aligned with actual vehicle ownership and parking utilization rates, barriers to the development of multi-family housing in dense, walkable districts can be reduced.

Methodology

Property selection: The Town of Arlington selected nine multi-family residential developments to be evaluated for the residential parking analysis. Developments were selected based on size, location and ownership. Properties ranged in size from 24 to 176 units, and the types of developments varied, including subsidized and luxury, rental and condominium, and old and new developments. The majority of properties (6/9) were located on Massachusetts Avenue. All developments were within a seven-minute walk to a bus stop that provides direct access to the Alewife or Harvard MBTA stations. Each property had a surface lot with designated parking for residents, and six also had garages. A map of the surveyed properties is available in Appendix A, and further details about each property are available in Appendix B.

Surveys: The property manager and/or owner of each development was asked to complete a brief two-page survey regarding parking at their development. Questions detailed the type and number of housing units at each development, as well as the type and amount of parking available to residents. The survey asked further questions about parking, including whether there is a waitlist for parking, how residents can obtain additional parking beyond what is provided, if needed, and if there is anyone aside from residents that utilize parking on-site. Survey respondents had the option to complete the survey electronically or on paper. Summarized survey results are available in Appendix C, and a copy of the survey is available in Appendix D.

Overnight counts: Following the completion of the surveys, MAPC assessed residential parking usage by conducting overnight parking observations to confirm the number of parking spaces and identify the number of parked vehicles at each property. Counts took place overnight on a weeknight in an effort to survey properties when it was assumed the majority of residents were home and residential parking usage rates would be at their peak. MAPC also made note of any spaces that were reserved for uses other than residential parking, such as visitor parking, carsharing spaces, and handicapped spaces. MAPC was able to survey all surface lots and open garages, but a few of the enclosed garages were not accessible. Capacity for these garages were estimated from the exterior, if possible. Properties were surveyed from 12am-2am on Thursday, January 14, 2016.

Survey and Overnight Count Results and Analysis

Surface parking: Using the survey and overnight parking observation data, MAPC was able to determine that the nine properties **exhibited an overall 57% occupancy rate for surface lots, with a total of 152 spaces unutilized across the nine properties.** Surface parking utilization rates ranged from 14% to 92%. It was noted that smaller properties with less parking exhibited the highest utilization rates and had the least excess parking.

Garage parking: Arlington 360 had a partially open garage that was not accessible but parking was visible from the outside. MAPC estimated capacity at that garage to be approximately 75%. The Avenue, The Legacy, The Kentwood, and Watermill Place all had fully enclosed garages that were not accessible, but staff was able to speak with property management at all four developments to determine how many parking spaces have been deeded. At the Legacy, 93 of the 100 garage spaces are deeded, while all garage spaces at the Avenue, the Kentwood, and Watermill Place are deeded. It should be noted, however, that deeded spaces do not necessarily imply that they are utilized, particularly at developments where parking is included in rental cost or purchase price. MAPC was able to access the parking garage at Brigham Square, which had a utilization rate of 88%. Detailed findings from the on-site observations are available in Table 1 below.

Table 1. Parking Utilization

Property Name (Year Built)	Surface Parking			Garage Parking			Overall Percent Occupied
	Spaces Provided	Spaces Occupied	Percent of Spaces Occupied	Spaces Provided	Spaces Occupied ⁶	Percent of Spaces Occupied	
Rental Units							
Capitol Theatre Block (1915)	5	4	80%	0	-	-	80%
Capitol Square Apts (1910)	32	20	63%	0	-	-	63%
The Legacy (2000)	50	34	68%	100	93	93%	85%
Brigham Square Apts (2012)	36	22	61%	88	77	88%	80%
Arlington 360 (2013)	80	36	45%	~283	213	75%	69%
Highland Court (1950)	13	12	92%	0	-	-	92%

⁶ Due to access issues, the number of garage spaces that are occupied for The Avenue, The Legacy, The Kentwood, and Watermill Place is the number of parking spaces that are deeded and not based on observations from overnight parking counts. Staff was not able to access the garage at Arlington 360 but occupancy was approximated from exterior observations.

Property Name (Year Built)	Surface Parking			Garage Parking			Overall Percent Occupied
	Spaces Provided	Spaces Occupied	Percent of Spaces Occupied	Spaces Provided	Spaces Occupied ⁷	Percent of Spaces Occupied	
Ownership Units							
The Avenue (2004)	11	10	91%	22	22	100%	97%
The Kentwood (1972)	21	3	14%	67	67	100%	80%
Watermill Place (1988)	103	58	56%	72	72	100%	74%
Total	351	199	57%	632	544	86%	76%

The data in Table 2 further explains the discrepancies between parking requirements, parking capacity, and parking occupancy. The two properties that experienced the highest occupancy rates were the smallest of the properties surveyed, and had a parking ratio of nearly 1 space per unit. In general, the more parking that was provided beyond the 1:1 ratio, the lower the occupancy rate. Although the majority of properties were constructed with slightly less parking than required by the Zoning Bylaw, the amount of parking that was constructed still surpassed residential utilization at nearly all developments.

Table 2. Parking Required, Constructed, and Utilized

Property Name	Residential Units	Parking Spaces Required ⁸	Parking Spaces Constructed	Parking ratio (spaces/unit)	Observed Utilization (spaces/unit)
<i>Rental Properties</i>					
Capitol Theatre Block	23	27 ⁹	5	0.22	0.17
Capitol Square Apartments	32	40	32	1.00	0.63
The Legacy	132	191	150	1.14	0.96
Brigham Square Apartments	116	153	124	1.07	0.85
Arlington 360	176 ¹⁰	248	~363	2.06	1.41
Highland Court	24	36	13 ¹¹	0.54	.5
Total	503	695	687	1.37	1.02

⁷ Due to access issues, the number of garage spaces that are occupied for The Avenue, The Legacy, The Kentwood, and Watermill Place is the number of parking spaces that are deeded and not based on observations from overnight parking counts. Staff was not able to access the garage at Arlington 360 but occupancy was approximated from exterior observations.

⁸ Based on existing Zoning Bylaw.

⁹ Figure assumes all units are 1-bedroom.

¹⁰ Figure include rental and townhome units.

¹¹ 7-9 spaces rented from nearby commercial lot are not included in this figure.

Property Name	Residential Units	Parking Spaces Required ¹²	Parking Spaces Constructed	Parking ratio (spaces/unit)	Observed Utilization (spaces/unit)
<i>Ownership Properties</i>					
The Avenue	27	35	33	1.22	1.19
The Kentwood	64	89	88	1.38	1.09
Watermill Place	130	171	175	1.35	1.00
Total	221	295	296	1.34	1.05

It should be noted that within the study area, when comparing ownership and rental properties, parking is being constructed and utilized at very similar rates. Furthermore, parking utilization for the three ownership properties was determined by conservative estimates based on the number of observed surface lot spaces and deeded garage spaces. Because some deeded spaces may not be utilized, it is highly possible that actual parking utilization at these three developments are less than 1.05 spaces per unit.

Recommendations

The data collected for this analysis demonstrates that the residential parking usage rate within the study area is well below what is currently required for parking construction in the Zoning Bylaw. While an 85% occupancy rate is what is recommended for commercial parking facilities that expect and rely on frequent turnover, a residential parking lot should see closer to 100% occupancy during peak usage hours.¹³ Although not all garages were made accessible for observation, it is assumed that garage occupancy rates are generally higher than surface lot occupancy rates, which indicates a tendency for surface lot parking to be overbuilt when garage parking is also available.

MAPC has created the following recommendations that will help ensure future multi-family properties constructed within densely developed districts are subject to proportional and context-specific parking requirements.¹⁴ Ultimately, these recommendations are intended to reflect the lower rates of vehicle ownership and parking utilization observed within the study area, particularly along the Massachusetts Avenue corridor. Multi-family property development will most likely continue to be concentrated within dense, transit-rich districts. As national trends indicate, residents in these districts will likely become decreasingly reliant on vehicles and therefore have a decreased demand for residential parking. Parking requirements should be reflective of residential demand for parking in order to prevent the overconstruction of parking, which is costly for developers and residents alike. Allowing for more flexibility in parking requirements will help parking from becoming a barrier to development.

As part of the Zoning Bylaw update, adjust parking requirements to more accurately reflect varied residential parking usage in different zoning districts:

¹² Based on existing Zoning Bylaw.

¹³ Donald Shoup, "The High Cost of Free Parking"

¹⁴ Recommendations have been made knowing that the Town of Arlington does not permit overnight on-street parking for more than one hour from 1am to 7am.

Arlington currently has a single set of parking requirements that apply to all multi-family residential developments. MAPC recommends taking a more nuanced approach and reducing parking requirements in the more densely developed areas that are particularly walkable, bikeable, and highly accessible by transit. It should be noted that the amount of parking constructed per unit and the number of parking spaces utilized per unit averaged out to be nearly the same for both ownership and rental properties, indicating that parking is overbuilt throughout the study area. These recommendations can serve as a first step toward promoting the development of multi-family housing in dense, walkable communities.

The existing parking requirements articulated in the Town's Zoning Bylaws for multi-family housing are:

- Studio: 1 space per unit
- One bedroom: 1.15 spaces per unit
- Two bedroom: 1.5 spaces per unit
- Three bedroom: 2 spaces per unit

The data collected confirms that the current parking requirements are too high based on the observed parking utilization within the study area. Given that overall utilization was 1.02 spaces per unit for rental properties, and 1.05 spaces per unit for ownership properties, a parking maximum of one space per unit for some of the most dense, walkable zoning districts along the Massachusetts Avenue corridor will more effectively meet parking demand and reduce the amount of overbuilt parking. In contrast to parking minimums, parking maximums allow the municipality to retain greater control over the amount of parking that is constructed and allows the developer to determine the appropriate parking needs for their site. Additionally, parking requirements that surpass parking demand can serve as a financial barrier to development. Parking maximums help prevent the overconstruction of parking, and in turn allow resources to be allocated to other amenities, such as open space development. MAPC has created the following recommendations for modified parking requirements within the following districts specified below. For a zoning map of Arlington, please see Appendix E.

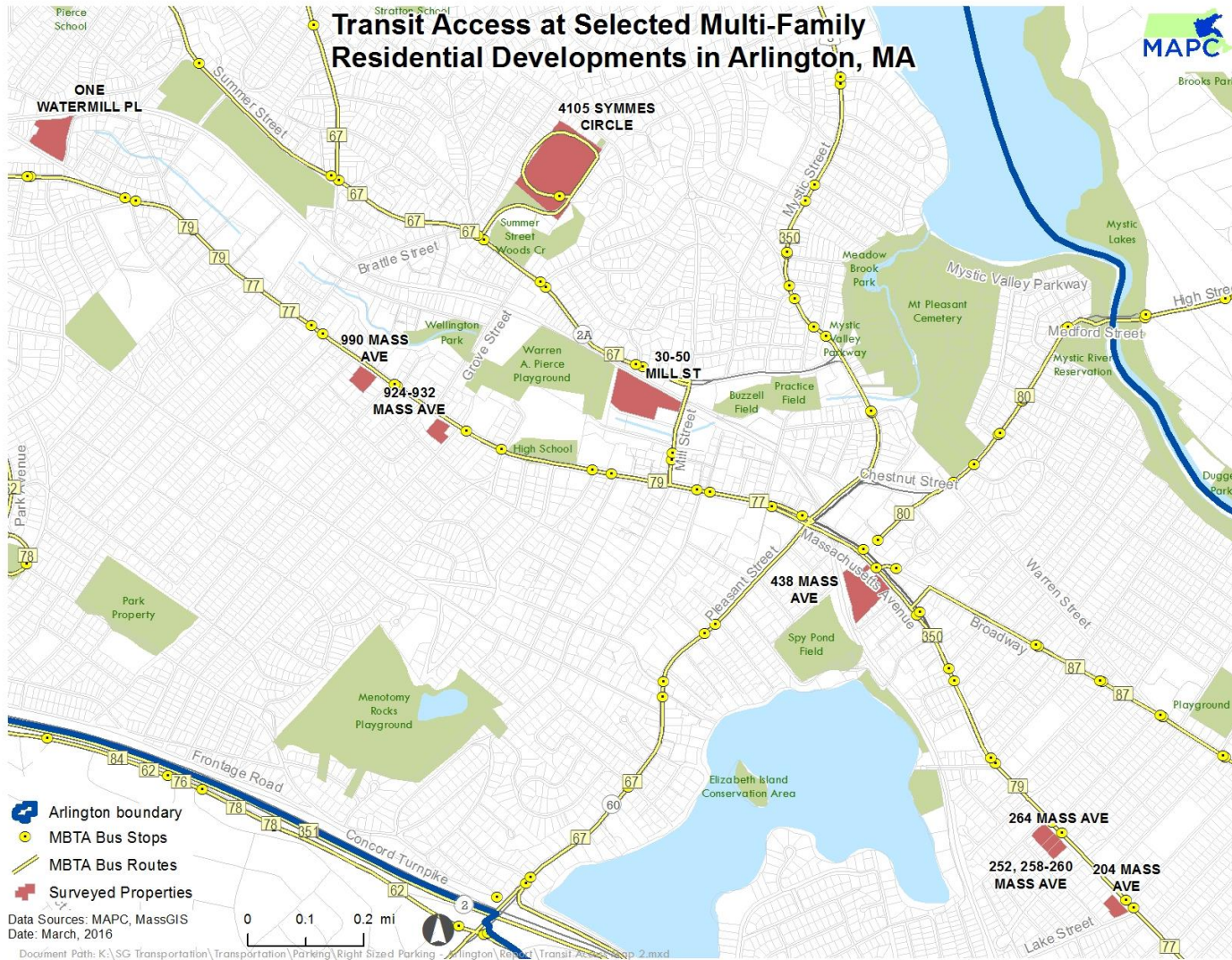
- *Implement a parking maximum of one space per unit for multi-family residential properties within the R6- Apartment District-Medium Density, R7- Apartment District-High Density, B3-Village Business District and the B5- Central Business districts. Assuming that the garages at the Avenue, the Kentwood, and Watermill Place are all at capacity, the observed parking ratio at each of these developments was approximately one space per unit. These districts are located primarily along the Massachusetts Avenue corridor, which is highly walkable and bikeable and well-served by public transit.*
- *For multi-family residential properties located within the R6, R7, B3, and B5 districts that are comprised of majority affordable units, further reduce the parking requirements and implement a parking maximum of .75 parking spaces per unit. Generally, low-income populations have lower rates of vehicle ownership and are more dependent on public transit. Given the walkability, bikeability, and accessibility of public transit within these districts, MAPC recommends a reduction in parking requirements for affordable developments constructed in these districts. At the Capitol Square Apartments, which is comprised of entirely subsidized units, the observed parking utilization ratio was 0.63 spaces per unit. Implementing a parking maximum will also help drive down the cost of development and keep the rental costs of these properties affordable.*

- *For mixed-use developments that include a residential use, consider permitting a reduction in parking requirements based on the types of uses and the anticipated peak usage times.* This is an especially useful tool for commercial and residential mixed-use developments, as consumers and residents are likely to utilize parking during different time periods. The City of Marlborough allows for a reduction in parking requirements by up to 50% if the developer can demonstrate a significant difference in peak usage time and that the parking provided will adequately meet demand for each use. Additionally, the City of Waltham created a parking credit schedule chart to determine minimum parking requirements based on the anticipated parking utilization rates at different time periods for different uses. Please see Appendix E for details.

Additional recommendations to supplement “right-sized” parking requirements:

- Consider instituting a fee in lieu of parking for developers that wish to construct less parking than is required by the Zoning Bylaw. For example, the Town of Needham requires developers that construct buildings within certain districts pay a one-time fee to the Needham Center Off-Street Parking Fund if they construct fewer spaces than required. The fee per space increases proportionally with the number of spaces not constructed. In Arlington, developers that use public parking to could toward parking requirements are not charged. The Town could instead charge developers that utilize the Russell Commons parking lot and put the fee toward improvements within the business district
- Encourage property managers and owners to separate parking costs from rental and purchase costs to help ensure residents who do not need parking do not have to pay. Unbundling parking costs is already occurring at several developments in Arlington, including Arlington 360, Brigham Square, and the Legacy. Alternatively, some property managers offer discounts on rent to tenants that do not have cars and therefore will not utilize parking. Tenants at the Avenue, the Kentwood, and Watermill Place receive \$100 off their monthly rental cost if they do not require off-street parking.
- Continue to promote transit alternatives to single-occupant vehicles, such as walking, biking, public transit, carsharing, and carpooling.

Appendix A. Map of Surveyed Properties



Appendix B: Property Details

Table 1. Property Overview

Property name	Address	Transit Accessibility	Walk Score	Zoning	Housing Type	Number and Type of Units	Vacancy	Subsidized
Capitol Theatre Block	204 Massachusetts Ave.	Great access, frequent service	88: Very Walkable	B3- Village business	Rental	Total: 23	--	--
Capitol Square Apartments	252, 258-260 Massachusetts Ave.	Great access, frequent service	88: Very Walkable	R6- Apartments Medium Density	Rental	Total: 32 Studio: 5 2 BR: 9 1 BR: 18 3 BR: 0	Yes (1)	Yes (32)
The Avenue	264 Massachusetts Ave.	Great access, frequent service	87: Very Walkable	R6- Apartments Medium Density	Condo	Total: 27 Studio: 0 2 BR: 10 1 BR: 16 3 BR: 1	No	Yes (3)
The Legacy	438 Massachusetts Ave.	Great access, frequent service	90: Walker's Paradise	B5- Central business	Rental	Total: 132 Studio: 0 2 BR: 115 1 BR: 17 3 BR: 0	No	No
Brigham Square Apartments	30-50 Mill St.	Good access, moderate frequency	43: Car-Dependent	B2A- Major Business	Rental	Total: 116 Studio: 18 2 BR: 63 1 BR: 35 3 BR: 0	Yes (6)	Yes (17)
Arlington 360	4105 Symmes Ct.	Good access, Infrequent service	36: Car-Dependent	MU- Multi-use	Rental	Total: 164 Studio: 15 2 BR: 80 1 BR: 47 3 BR: 22	Yes	Yes (35)
Highland Court	924-932 Massachusetts Ave.	Great access, moderate frequency	82: Very Walkable	R6- Apartments Medium Density	Rental	Total: 24 Studio: 0 2 BR: 24 1 BR: 0 3 BR: 0	Yes (2)	Yes (2)
The Kentwood	990 Massachusetts Ave.	Great access, moderate frequency	79: Very Walkable	R7- Apartments High Density	Condo	Total: 64 Studio: 8 2 BR: 46 1 BR: 10 3 BR: 0	No	No
Watermill Place	1 Watermill Pl.	Good access, moderate frequency	74: Very Walkable	R7- Apartments High Density	Condo	Total: 130 Studio: 0 2 BR: 61 1 BR: 69 3 BR: 0	No	No

Appendix C. Survey Results

Table 2. Summarized Survey Results

Property name	Spaces provided	Parking included with unit price?	Monthly parking cost	How are additional spaces assigned?	Waitlist	Other uses	Parking offsite	Comments
Capitol Theatre Block	5	--	--	--	--	--	--	--
Capitol Square Apartments	32	Yes	--	Have not had a request for additional parking	No	Yes ▪ Handicapped: 2	No	No comments or complaints, have at least 10-12 parking spaces unused any day
The Avenue	33	Yes	--	No available spaces	No	No	Yes	--
The Legacy	150	No	\$125 per space	Must pay for each space separate from rental cost	No	Yes ▪ Management: 5 ▪ Handicapped: 7 ▪ Carsharing: 1	No	Wishes there was overnight street parking for guests & larger spaces
Brigham Square Apartments	124	No	\$70: lot space; \$95: garage space	Spaces are first come, first served	Yes	Yes ▪ Nearby businesses: 23	No	--
Arlington 360	~363	No	\$75 for first vehicle, \$125 for second	Must pay for each space separate from rental cost	No	No	No	We need more surface spots (outside) and visitor parking
Highland Court	13	Yes	--	Spaces are first come, first served	Yes	No	Yes	We must rent spaces from a nearby commercial property at \$100/month/space to meet the shortage of 7-9 spaces currently needed. We need a minimum of 1 space per unit. On-street permit parking for a fee would be helpful if available
The Kentwood	88	Yes	--	No additional space available	No	No	No	--
Watermill Place	175	Yes	--	Can rent a space from another unit owner	No (all spaces are deeded)	Yes ▪ Visitor: 9	No	--

Appendix D: Residential Parking Survey

The Park Smart Calculator Project is being conducted by the Metropolitan Area Planning Council, (MAPC), in partnership with the Town of Arlington. This 2-page survey is about the types and amounts of parking provided for your building. The purpose of this survey is to assist the town in determining how much parking is needed for new residential development based on current parking demand for existing residential buildings. Your participation is voluntary and the survey should take about 10 minutes to complete. Please contact Kasia Hart at 617-933-0745 or khart@mapc.org or Laura Wiener at 781-316-3091 or lwienier@town.arlington.ma.us for further information.

SECTION 1 SITE CONTACT

1	Building name				
2	Address	Street:			
		City:	Zip:		
3	Building manager	Company:			
		Contact person:	Title:		
		Phone:	Email:		
4	<input type="checkbox"/> Check the box to receive periodic notifications on the project by email.				

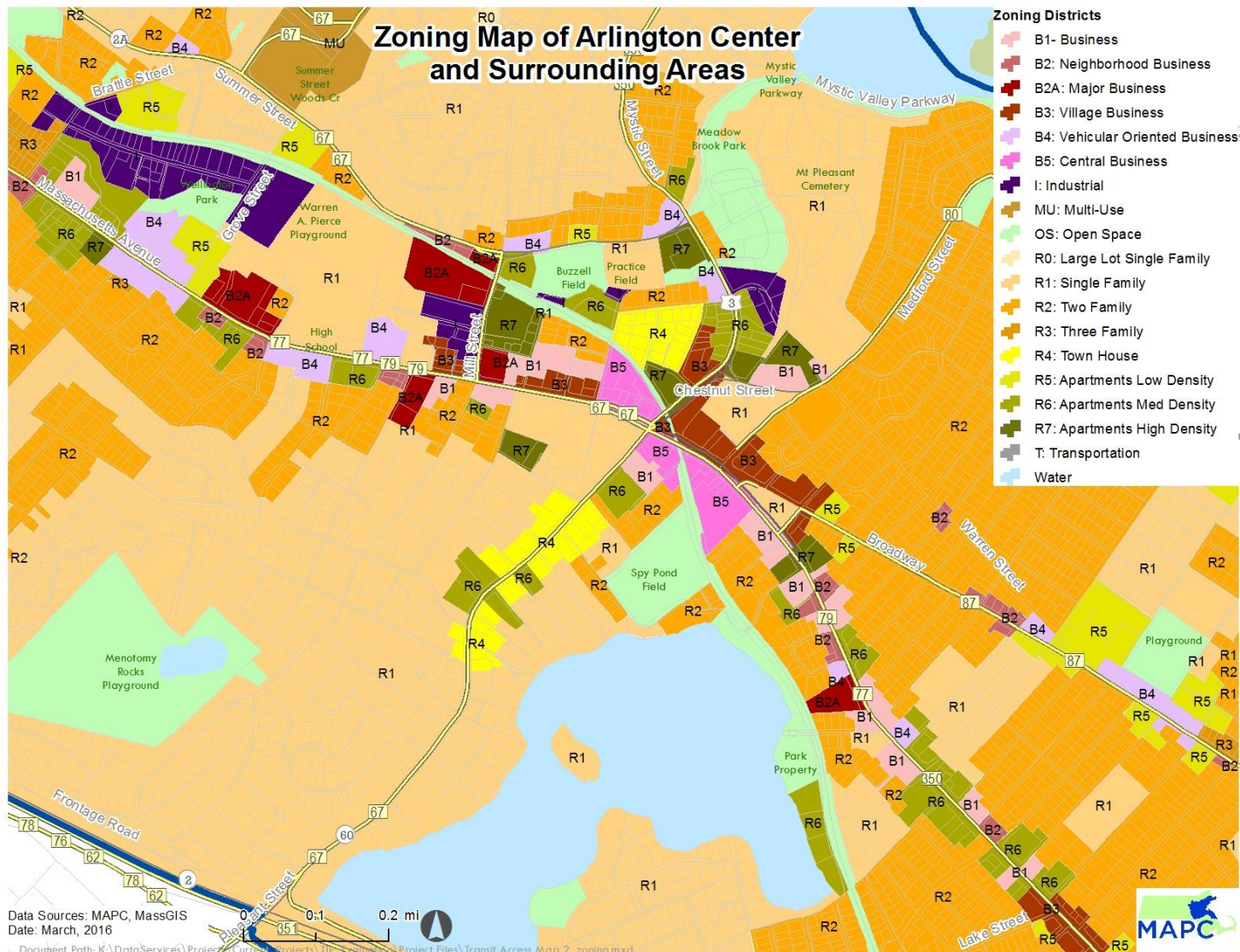
SECTION 2 HOUSING UNITS

1			Studio	1 Bedroom	2 Bedroom	3+ Bedroom	TOTAL
1	Number of rental units by bedroom						
	Number of condo units by bedroom						
2	Current number of vacant units						
3	Average cost	Monthly rent					n/a
		Purchase price					n/a
4	Number of subsidized units by type (Section 8, Rental Voucher or other types of deed restricted units)		Studio	1 Bedroom	2 Bedroom	3+ Bedroom	TOTAL
	Number of rentals						
	Number of condos						

SECTION 3 PARKING

1	How many spaces are reserved for residents? (write "0" if type not present)		Surface lot	Garage	Bicycle	Scooter/ Motorcycle	
2	Is vehicular parking included in resident's monthly rental cost or the purchase of a condo?		Rental	(yes/ no)	Number of spaces provided per unit:		
			Purchase	(yes/ no)	Number of spaces provided per unit:		
3	If parking is not included as part of rent or ownership, what is the per-month cost to residents for a parking space? (If there is no cost, write "0")						Monthly cost
4	Can a resident save money on their rent or purchase price if they do not need a parking space? (yes/ no)						
5	If a resident wants additional parking above and beyond what is included in their rent/purchase price, how are additional spaces assigned? Please check all boxes that apply. <input type="checkbox"/> Spaces are first come, first serve <input type="checkbox"/> If a unit requests a parking space, they must pay for each space above the current rent or purchase price of the unit <input type="checkbox"/> Other, specify:						
6	Is there a waitlist for residential parking spaces? (yes/ no)						
7	In addition to residential parking, does the building reserve space for other users? If yes, indicate the breakdown below. (write "0" if type not present) (yes/ no)						
	Parking Type	Commercial	Management	Handicapped	Car sharing	Other	
	Amount of spaces						
8	Does the building lease and/ or allow non-residents to use parking? (yes/ no)						
	If yes, how many spaces and to which users are the spaces available to? (write "0" if type not present)						
	Nearby residents who do not reside in the building		Nearby businesses		City government		Other, specify
9	Do you think there are residents with cars who are parking off site? (yes/ no)						
10	Are there any recurring comments or complaints you hear from residents about parking in/around the facility? Do you have any comments or thoughts on parking usage at your building?						

Appendix D. Zoning Map of Arlington Center and Surrounding Areas



Appendix E. City of Waltham Parking Credit Schedule Chart

From the City of Waltham Zoning Code, Sec. 5.22(c):

“Notwithstanding any other parking requirements set forth in this chapter for individual land uses, when any land or building is used for two or more distinguishable purposes (i.e., joint or mixed use development), the minimum total number of parking spaces required to serve the combination of all uses shall be determined in the following manner:

Multiply the minimum parking requirement for each individual use (as set forth in the applicable section of this chapter for each use) by the appropriate percentage (as set forth below in the Parking Credit Schedule Chart) for each of the five designated time periods and then add the resulting sums from each vertical column. The column total having the highest total value is the minimum shared parking space requirement for that combination of land uses.”

Parking Credit Schedule Chart

Uses	Weekday			Weekend	
	Night: 12:00am- 7:00am (percent)	Day: 7:00am- 5:00pm (percent)	Evening: 5:00pm- 12:00am (percent)	Day: 6:00am- 6:00pm (percent)	Evening: 6:00pm- 12:00am (percent)
Residential	100%	60%	90%	80%	90%
Office/industrial	5%	100%	10%	10%	5%
Commercial retail	5%	80%	90%	100%	70%
Hotel	70%	70%	100%	70%	100%
Restaurant	10%	50%	100%	50%	100%
Restaurant associated with hotel	10%	50%	60%	50%	60%
Entertainment/recreation (theaters, bowling alleys, cocktail lounge and similar)	10%	40%	100%	80%	100%
Daycare facilities	5%	100%	10%	20%	5%
All other	100%	100%	100%	100%	100%